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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,217	12/17/2004	Shigeru Suzuki	57965US006	7313
32692	7590	09/25/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			NGUYEN, CHAU N	
PO BOX 33427			ART UNIT	PAPER NUMBER
ST. PAUL, MN 55133-3427			2831	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/519,217	SUZUKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Chau N. Nguyen	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) *        | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (WO 95/11542) in view of Braun et al. (5,277,459).

Nakamura et al. discloses a cold shrink tube unit comprising an elastic tube member (15) with an opening end and a hollow cylindrical slidably detachable core member (Figures 3-4) removably provided inside a seal region of said elastic tube member, having a predetermined length from said opening end, to hold said seal region in an elastically expanded state, wherein said core member comprises a body portion (31a) defining a hollow cylinder and a sliding portion (31b) integrally connected with one axial end of said body portion and in cooperation with the body portion, said sliding portion having flexibility permitting it to be turned over and laid on an outer circumferential surface of said body portion, the sliding portion being formed adjacent to the body portion, and said slidably detachable core member being provided inside said seal region (re claims 1 and 8).

Nakamura et al. does not disclose said body portion (31a) including two or more plate-like sections capable of being combined with each other to form said hollow cylinder, the sliding portion (31b) including two or more sliding sections, nor at least one joint portion pivotally connecting the two or more plate-like sections with each other and the joint portion being free from contact with the sliding sections.

Braun et al. (Figure 5) discloses a core member (60) which is formed by two or more plate-like sections (80, 82) capable of being combined with each other to

form a hollow cylinder and comprising mutually independent parts (re claim 2), a joint portion (66) pivotably connecting the plate-like portions with each other to form the hollow cylinder (re claim 3), the joint portion (66) being free from contact with another section of the core member (re claims 1 and 8), and the joint being structured to deform under external force to allow the adjoining plate-like portions to be pivoted (re claim 4). It would have been obvious to one skilled in the art to modify the core member of Nakamura et al., including the body portion 31a and the sliding portion 31b, to comprise two or more adjoining sections with at least one joint portion pivotally connecting the body portion (the plate-like sections) with each other as taught by Braun et al. to avoid the need of unthreading the core member from the free end of cable.

Re claims 9 and 10, the modified core member of Nakamura et al. discloses each individual sliding section being integrally connected with an axial end of each individual plate-like section.

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in view of Braun et al. as applied to claim 1 above, and further in view of Osnami et al. (6,472,600).

The combination of Nakamura et al. and Braun et al. discloses the invention substantially as claimed except for the plate-like sections being provided with engagable end faces capable of being engage with each other in a form of said hollow cylinder, and which include reinforcing portions formed in peripheral end regions, including said engagable end faces, of said plate-like sections for holding said plate-like sections in a form of said hollow cylinder against an external force, and said reinforcing portions being formed in said engagable end faces, adapted to be engaged with each other, of said mutually adjoining plate-like sections, and respectively including concave and convex configurations detachably fitted with each other.

Osnami et al. discloses a core member (Figures 14 and 18) comprising two or more plate-like sections (the core member 4a formed by two plate-like sections 8 and 9) which are provided with engagable end faces capable of being engage with each other in a form of said hollow cylinder and which include reinforcing portions formed in peripheral end regions, including said engagable end faces, of said plate-like sections for holding said plate-like sections in a form of said hollow cylinder against an external force, and said reinforcing portions being formed in said engagable end faces, adapted to be engaged with each other, of said mutually adjoining plate-like sections, and respectively including concave and convex

configurations detachably fitted with each other. It would have been obvious to one skilled in the art to include reinforcing portions having concave and convex configuration as taught by Osnami et al. in the peripheral end regions and the engagable end faces of the plate-like portions of Nakamura et al. to further secure the two portions together.

### ***Allowable Subject Matter***

5. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1 and 8 have been considered but are moot in view of the new ground(s) of rejection.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Chau N Nguyen  
Primary Examiner  
Art Unit 2831